

AMENDMENTS TO THE CLAIMS

The following is a complete, marked up listing of revised claims with a status identifier in parentheses, underlined text indicating insertions, and strikethrough and/or double-bracketed text indicating deletions.

LISTING OF CLAIMS

1. (Currently Amended) A computer readable ~~recording~~ storage medium having a data structure for managing reproduction of video data recorded on the ~~recording~~ medium when read by a computer having a microprocessor, comprising:

at least one navigation area for storing navigation management information for managing real-time reproduction of multiple reproduction path video data recorded on the ~~recording~~ medium; and

wherein at least one navigation unit comprises a plurality of video data packets and a plurality of real-time navigation packets, and

wherein the plurality of real-time navigation packets comprises a real-time navigation table, the real-time navigation table including real-time navigation data, the real-time navigation data including a plurality of real-time playback information and an indication information for indicating the number of real-time playback information within the navigation unit, and

wherein each real-time navigation packet has a same packet identification code that is different from that of each of said plurality of video packets.

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Currently Amended) The computer readable ~~recording~~ medium of claim 1, wherein said plurality of real-time navigation packets are sequentially recorded in the at least one navigation unit, with a fixed number.

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Currently Amended) The computer-readable ~~recording~~ medium as recited in claim 1, wherein said plurality of real-time navigation packets are discontinuously recorded in the navigation unit, with variable number.

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Currently Amended) The computer readable ~~recording~~ medium as recited in claim 1, wherein each of said plurality of real-time navigation packets are physically aligned with at least one corresponding physical recording unit of the ~~recording~~ storage medium, the physical recording unit having a predetermined size.

23. (Cancelled)

24. (Cancelled)

25. (Cancelled)

26. (Cancelled)

27. (Cancelled)

28. (Cancelled)

29. (Cancelled)

30. (Cancelled)

31. (Cancelled)

32. (Cancelled)

33. (Cancelled)

34. (Cancelled)

35. (Cancelled)

36. (Previously Presented) A method of recording a data structure for managing reproduction of real-time navigation video data on a recording medium comprising:

recording navigation management information for managing real-time navigation of multiple reproduction path video data in at least one navigation area of the recording medium; and

recording at least one navigation unit having a plurality of video packets and real-time navigation packets, wherein the plurality of real-time navigation packets comprises a real-time navigation table, the real-time navigation table including real-time navigation data, the real-time navigation data including a plurality of real-time playback information and an indication information for indicating the number of real-time playback information within the navigation unit, and

wherein each of said plurality of real-time navigation packets has a same packet identification number that is different from each of said plurality of video packets.

37. (Previously Presented) A method of reproducing a data structure for managing real-time navigation video data recorded on a recording medium comprising:

reproducing navigation management information for managing real-time navigation of multiple reproduction path video data from at least one navigation area of the recording medium; and

reproducing at least one navigation unit having a plurality of video packets and real time navigation packets, wherein the plurality of real-time navigation packets comprises a real-time navigation table, the real-time navigation table including real-time navigation data, the real-time navigation data including a plurality of real-time playback information and an indication information for indicating the number of real-time playback information within the navigation unit, and wherein each of said plurality of real-time navigation packets has a same packet identification number that is different from each of said plurality of video packets.

38. (Previously Presented) An apparatus for recording a data structure for managing reproduction of at least real-time navigation video data on a recording medium comprising:

a driver configured to drive an optical recording device to record data on the recording medium; and

a controller configured to control the driver to record an encoded real-time navigation of multiple reproduction path video data on a recording medium, the controller configured to control the driver to record real-time navigation management information for managing reproduction of the real-time navigation information in at least one navigation unit; and

the controller configured to control the driver to record a plurality of real-time navigation packets in the at least one navigation unit and to record a plurality of video packets, wherein the plurality of real-time navigation packets comprises a real-time navigation table, the real-time navigation table including real-time navigation data, the real-time navigation data including a plurality of real-time playback information and an indication information for indicating the number of real-time playback information within the navigation unit, and wherein each of said plurality of real-time navigation packets has a same packet identification number that is different from each of said plurality of video packets.

39. (Previously Presented) An apparatus for recording a data structure for managing reproduction of real-time navigation data on a recording medium, comprising:

a driver configured to drive an optical reproducing device to reproduce data recorded on the recording medium;

a controller configured to control the driver to reproduce navigation management information for managing real-time navigation of multiple reproduction path data from at least one navigation unit of the recording medium; and

the controller configured to control the driver to reproducing a plurality of video packets recorded on the recording medium using a plurality of real-time navigation packets contained within the at least one navigation unit, wherein the plurality of real-time navigation packets comprises a real-time navigation table, the real-time navigation table including real-time navigation data, the real-time navigation data including a plurality of real-time playback information and an indication information for indicating the number of real-time playback information within the navigation unit, and wherein each of said real-time navigation packets has a same packet identification number that is different from each of said plurality of video packets.

40. (Previously Presented) The apparatus recited in claim 39, wherein each of said plurality of real-time navigation packets are physically aligned with at least one corresponding physical recording unit of the recording medium, and

wherein the controller is configured to control the driver to read the real-time navigation packets.

41. (Previously Presented) The method according to claim 36, wherein the multiple reproduction path video data includes different versions of a title.

42. (Previously Presented) The method according to claim 37, wherein the multiple reproduction path video data includes different versions of a title.

43. (Previously Presented) The apparatus of claim 38, wherein the multiple reproduction path video data includes different versions of a title.

44. (Previously Presented) The apparatus of claim 39, wherein the multiple reproduction path video data includes different versions of a title.

45. (Previously Presented) An apparatus for reproducing a data structure for managing reproduction of at least real-time navigation video data recorded on a recording medium comprising:

an optical reproducing device to reproduce data on the recording medium; and
a controller to control the optical reproducing device to reproduce an encoded real-time navigation of multiple reproduction path video data, the multiple reproduction path data including different versions of a title from a recording medium,
the controller configured to control the optical reproducing device to reproduce a plurality of real-time navigation packets in the at least one navigation unit and to reproduce a plurality of video packets, wherein the plurality of real-time navigation packets comprises a real-time navigation table, the real-time navigation table including real-time navigation data, the real-time navigation data including a plurality of real-time playback information and an indication information for indicating the number of real-time playback information within the navigation unit, and wherein each of said plurality of real-time navigation packets has a same packet identification number that is different from each of said plurality of video packets.

46. (Previously Presented) The method of claim 36, wherein each of said plurality of real-time navigation packets are physically aligned with at least one corresponding physical recording unit of the recording medium.

47. (Previously Presented) The apparatus of claim 45, wherein the controller is configured to analyze the real-time navigation data to reproduce the real-time navigation video data.

48. (Previously Presented) The apparatus of claim 45, further comprising:

a demultiplexer configured to separate the real-time navigation packets from the video packets, by using the same packet identification number

49. (Previously Presented) The apparatus of claim 48, further comprising:

a decoder configured to decode the encoded video data, demultiplexed by the demultiplexer.

50. (Previously Presented) The apparatus of claim 45, wherein the controller is further configured to receive a user input for designating a specific path video data.